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ABSTRACT

GENERAL RECOMMENDATIONS ARE SET FORTH REGARDING AESTHETICS, ACOUSTICS, LIGHTING, TEMPERATURE CONTROL, LOCATION, AND LAYOUT OF THE INSTRUCTIONAL MEDIA CENTER. CONSIDERATION IS GIVEN TO SPATIAL RELATIONSHIPS, EQUIPMENT AND FURNISHINGS, AND SUGGESTIONS ARE INCLUDED REGARDING BASIC AND ADVANCE FACILITIES FOR PRIMARY, MIDDLE AND SECONDARY SCHOOLS. (FS)

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INSTRUCTIONAL MEDIA CENTER

EDUCATIONAL FACILITY SERIES

A GUIDE TO PLANNING

EF 003 841

STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION
BUREAU OF SCHOOL PLANNING SERVICES
TRENTON NEW JERSEY

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INSTRUCTIONAL MEDIA CENTER

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PREFACE

This bulletin has been prepared by the educational consultancy staff of the Bureau of School Planning Services, New Jersey State Department of Education to assist boards of education, administrators, architects and facilities consultants in planning modern educational plants. Special acknowledgment is made of the following individuals who generously gave of their time and professional talents in review of this material: Miss Ann Voss, Coordinator of School Libraries, Public and School Library Services Bureau, New Jersey State Department of Education; Mr. William King, Director of Audio-Visual Education, New Jersey State Department of Education; Dr. Mary Gaver, Professor of Library Services, Rutgers, the State University; and Dr. James Page, Director of the Instructional Materials Center, Michigan State University.

We are particularly indebted to Raymond E. Babineau who directed the research and devoted many hours to the compiling and editing of the collected materials.

PRELIMINARY CONSIDERATIONS

Current educational philosophy has expanded the concept of a library to that of an instructional media center, an instructional materials center, a learning-resource center, an independent study center, a media utilization center and, in general, a focal point for the educational program. The creation of this unique concept offers an opportunity for educators, librarians, media personnel and architects to plan an educational facility designed to complement instructional programs. It makes little difference whether the facility is called a learning resource center, a library, an instructional materials center, or a media center. All are striving to provide an environment rich in materials and services.

The word media is used in the new Standards for School Media Programs as the most comprehensive term to describe the elements of a library/audio-visual program. Since the inclusion of an Instructional Media Center is becoming increasingly essential to a modern school program, it is imperative that local school districts have guidelines while planning this facility. This publication is designed to offer a broad range of suggestions adaptable to the planning needs of individual school districts and should assist school administrators in

preparing educational specifications to guide the architect in developing plans. Consultation with school librarians, teachers, audio-visual personnel and other associated individuals will contribute to a well planned, usable center.

This bulletin is intended to provide <u>suggestions</u> for planning an Instructional Media Center; it is not intended to supersede in any way the requirements and recommendations of the <u>Guide for Schoolhouse Planning and Construction</u> as adopted by the State Board of Education. It should also be remembered that while this bulletin discusses the facilities for one phase of the educational program, it is not intended to press the use of space or expenditure of funds for this part of the educational program at the expense of others. Provisions for the many diversified educational activities to be conducted in a school may best be accomplished by balancing the facilities for the intended purposes.

It is our sincere hope that this bulletin will be useful in the planning process. The Bureau of School Planning Services stands ready to offer additional assistance at any time.

GENERAL RECOMMENDATIONS

AESTHETICS

* *The overall environment should be one of comfort, dignity, attractiveness and vitality.*
* *Attention should be given to fluidity, proportion and unity.*
* *Color contributes immeasurably to a desirable learning environment.*
  - ° *Greens and blues are restful*
  - ° *Reds, stimulating*
  - ° *Yellows, exhilarating*
  - ° *Browns and grays tend to be depressing.*
* *Northern exposures will benefit by warm colors, such as yellows, reds and oranges. Southern exposures will benefit from cool colors such as greens and blues.*

ACOUSTICS

* *Agreeably quiet but not totally silent. This can be accomplished with carpeting and acoustical treatment of walls and ceilings.*
* *Various amounts of acoustical treatment should be provided within the Instructional Media Center according to the specific requirements of each area.*

QUALITY LIGHTING

* *Allows for maximum control of glare.*
* *Allows for a minimum of 50 foot-candles of artificial light at desk level.*
* *Has windows which permit, where desirable, a view of outside landscape.*
* *Has glare reducing glass.*
* *Would not permit large ornamental glass areas which produce light of a distracting nature and or detract from space requirements.*
* *Dimmers should be provided where appropriate.*
* *Is better achieved by using the following reflection factors:*
  - *Ceilings. . . 70 - 90%*
  - *Walls . . . . 40 - 69%*
  - *Furniture . . 35 - 50%*
  - *Floors. . . . 15 - 50%*
* *Insures ample illumination in the stack areas, particularly for books on the lower shelves.*

TEMPERATURE CONTROL

* *Air conditioning increases the efficiency and utilization of the areas.*
* *Ventilation equipment should be quiet.*

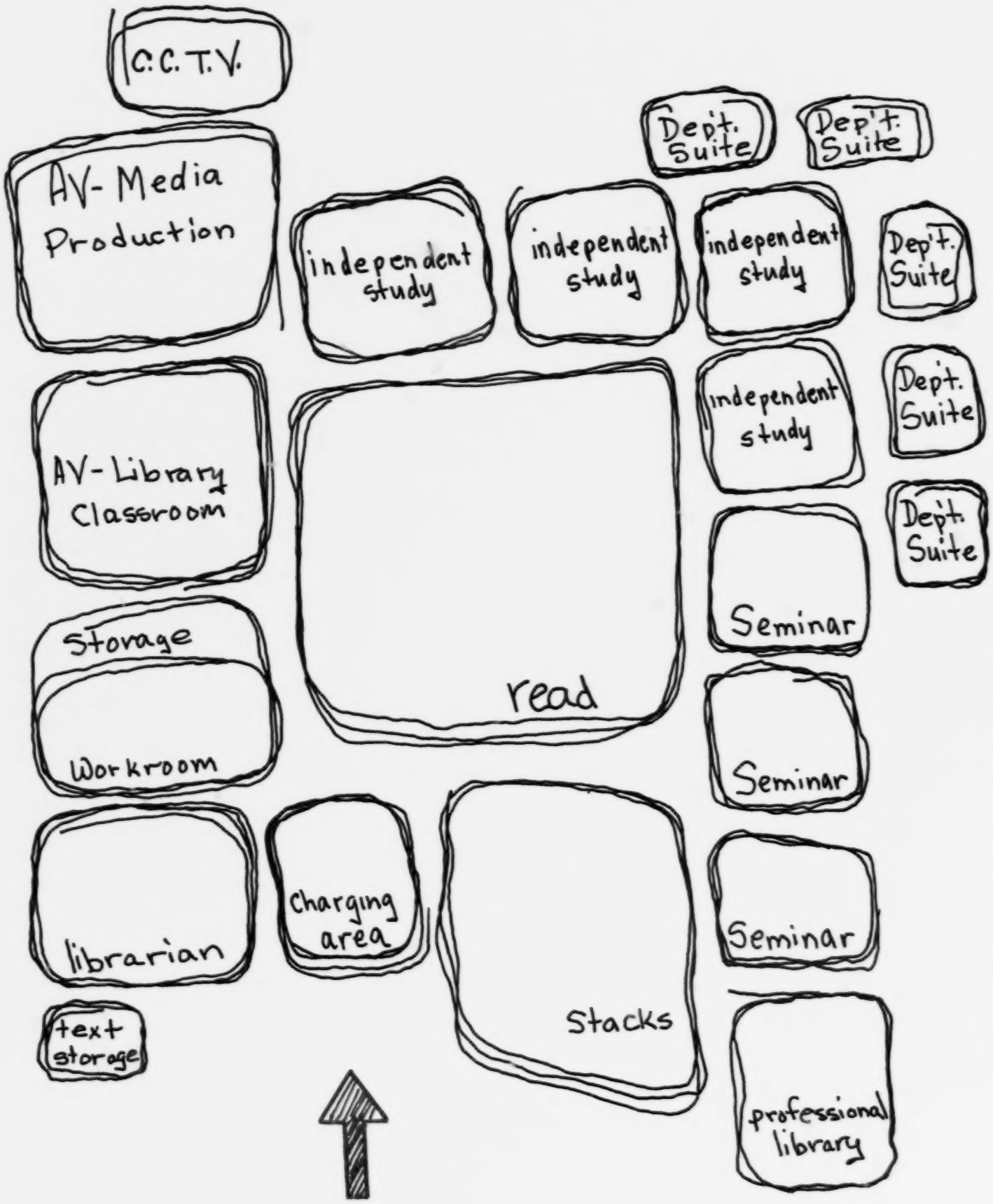
* *A constant temperature range of from 70 to 75 degrees Fahrenheit is desirable.*

LOCATION AND LAYOUT OF
INSTRUCTIONAL MEDIA CENTER

* *The Instructional Media Center should be a facility that is people oriented rather than things oriented with the administrative detail being held to a minimum and the instructional program objectives and aims maximized.*
* *It is desirable that this facility be located on the main floor level. A location central to all instructional areas in the building is ideal.*
* *Direct entrance from outside the building should be provided for evening and summer utilization.*
* *Where possible, a location utilizing a pleasant view of the exterior is desirable.*
* *A location remote from areas which would provide distracting noises such as gymnasium, cafeterias, shops, multi-purpose rooms, music rooms, etc., should be strived for.*
* *The Instructional Media Center should be situated to provide for future expansion.*
* *Provision for outdoor reading areas is desirable.*

* *Allow for movement of traffic through the area without disturbing students using the facility.*
* *Location should be such that in structures of two or more stories, access to an elevator or lift is convenient to or located in both the library work area and the audio-visual equipment storage area.*
* *Spatial relationships within the Instructional Media Center are indicated on the following diagram. This diagram encompasses features of all grade levels; only those areas applicable to a particular situation should be selected for consideration.*

SPATIAL RELATIONSHIPS *



* *It should be noted that the size relationships are not drawn to proportion.*

READER AREA

* *A minimum of 40 square feet per pupil should be provided in the reading area and additional space should be allocated if the school administration plans extensive independent study activities. Included in this square footage are the following:*
  - *The circulation desk should be within easy access of the entrance and office areas.*
  - *A minimum of 50 to 100 square feet for the card catalog.*
  - *A minimum of 300 to 500 square feet for a reference area with a reference-consultation desk.*
  - *A minimum of 350 to 500 square feet for periodical display.*
  - *Space for storing films, filmstrips, slides, transparencies, recordings and other media.*
  - *Seating areas which include study carrels, group study areas, flat top tables and lounge furniture.*
  - *Areas for an atlas case, book shelving, book trucks, bulletin boards, card catalogs, chairs, charging desk, dictionary stands, display cases, magazine shelving, newspaper racks, bibliographic stands, tables and vertical files.*

- *A story telling corner in primary school libraries for seating 30 pupils.*
- *Shelving space for a minimum of 10,000 volumes but at least 20 volumes per student, whichever is greater. Approximately one linear foot of shelf space per eight volumes is needed.*

SEMINAR ROOMS

* *Equipped with:*
  - *Rectangular or oval table*
  - *Chairs*
  - *Small chalkboard*
  - *Bulletin board*
  - *Standard shelving*
  - *Carrels*
* *Acoustically treated.*
* *Provisions for the utilization of audio-visual media.*
* *Arrangement convenient for visual supervision.*
* *A minimum of 150 square feet.*

DEPARTMENTAL SUITES

* *The departmental suite allows for specialized individual and small group activities including discussion, instruction, research and experimentation. These suites*

should encourage contacts between faculty and students and should be located adjacent to the Instructional Media Center.

* *The area may range from 200 square feet upward, depending on the academic discipline. Whether these suites are a part of the Instructional Media Center will in part be determined by philosophy of the school district. Exact recommendations on square footage for specific disciplines will be included in the bulletins of those disciplines.*

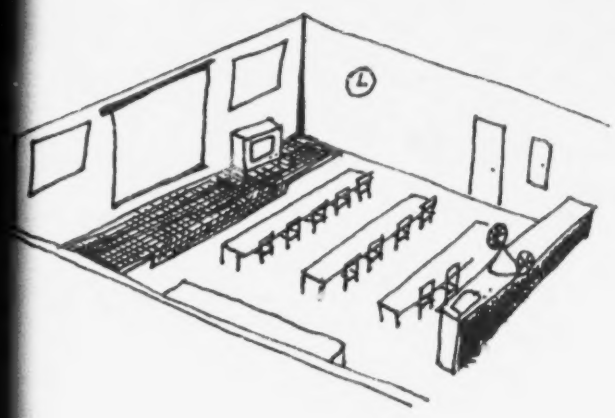
VIEWING AND LISTENING AREA

* *Equipped with:*
  - ° *Carrels and other seating*
  - ° *Projection screens*
  - ° *Wall screens*
  - ° *Audio equipment*
  - ° *Video equipment*
  - ° *Individual rear projection screen*
* *Acoustically treated. Where light control is desirable this should be a part of the planning.*
* *Wet carrels, i.e. carrels equipped with electrical power, may be desirable.*
* *Should have the facility for instructional television reception.*

* *Adequate electrical power and outlets should be provided.*
* *Dimmers for lights may be helpful.*
* *Space allocations from 10 to 20 square feet per person should be allowed and other space as may be required for specialized equipment.*
* *Should be designed for convenient visual supervision.*
* *Should be located near audio-visual equipment storage.*

FACULTY LIBRARY AND PREPARATION AREA

* *Provision should be made for informal furniture.*
* *Tables and chairs for conferences should be provided.*
* *Individual desks or study carrels for teacher research and planning are desirable.*
* *Pamphlet and teacher files are required equipment.*
* *Storage space for materials is necessary.*
* *Shelving to house professional materials is necessary.*
* *Adequate provision should be made for electrical outlets for utilization of various types of equipment for the preparation of teaching materials.*



* *Locating this facility next to a conference room will facilitate utilization of both areas.*
* *An area of 600-800 square feet should be adequate but the number and needs of the faculty will determine the exact area.*

INSTRUCTIONAL MEDIA CENTER CLASSROOM

* *Accessible to the reading area.*
* *Similar to an academic classroom with flexible, movable furniture.*

OFFICE AREA FOR PROFESSIONAL STAFF

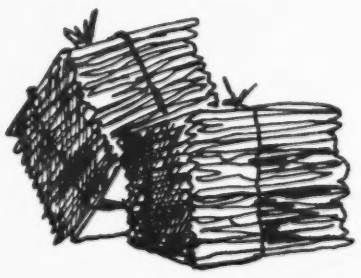
* *Individual offices with a minimum of 100 to 120 square feet should be provided for the librarians and media personnel.*
* *Provision should be made for a desk, a chair, two or three visitors chairs, a small card catalog unit and file cabinets.*
* *Offices should be planned with easy access to reading areas, work and storage rooms and reference areas.*
* *Adequate space should be provided for clerical assistants to carry out their respective duties.*
* *Planning should allow for possible expansion of the facility if an increase in professional and clerical staff is contemplated at some future date.*

LIBRARY WORK AREA

* *Equipped with:*
  - ° *Sink*
  - ° *Water resistant counters*
  - ° *Cabinets above and below counter level*
  - ° *Work tables*
  - ° *Typewriter table and chair*
  - ° *Adequate cabinets*
  - ° *Oversized cabinet with 24" x 36" drawers for storing maps, charts, etc.*
* *A door leading directly to the corridor or other passageway should be provided as well as access to the main reading room and office of the librarian.*
* *Electrical outlets should be adequate in number.*
* *A minimum area of 200 to 350 square feet is recommended.*

PERIODICAL AND BOOK STORAGE

* *This area will serve as a storage area for back issues of periodicals and infrequently used books.*
* *Approximately 250 to 400 square feet is recommended. The exact size will be determined by the size of the collection to be ultimately housed.*
* *Located adjacent to the central workroom.*



* *Shelving floor to ceiling and 12 to 14 inches deep.*
* *Equipped with:*
  - *Small work table*
  - *Chairs*
  - *Stepstool*

MICROFILM READER-PRINTER SPACE

* *Adequate space for microfilm reader, reader-printers and chairs. Special room may be needed if a large number of machines is used.*
* *Allow six to eight square feet per unit exclusive of seating and circulation.*
* *Allow special provisions for the storage of microfilm materials.*

AUDIO-VISUAL MEDIA PRODUCTION AND STORAGE AREA

* *Includes subdivisions for:*
  - *Materials storage, maintenance, distribution*
  - *Equipment storage, maintenance, distribution*
  - *Camera work*
  - *Dark room*
  - *Graphics*
  - *Editing*
  - *Faculty production area*
  - *Inservice-training areas*

* *An area of approximately 1,000 to 1,500 square feet should be adequate for the functions listed above but local programs will determine exact needs.*

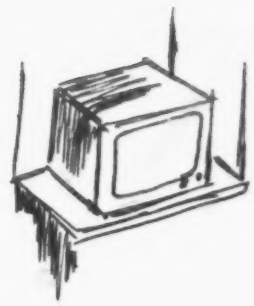
RECORDING STUDIO - AUDIO

* *Acoustically soundproofed.*
* *Wiring for equipment including audio cable should be provided.*
* *A vision panel may be desirable for use while recording is in progress.*
* *An area of 100 to 120 square feet is adequate.*

INSTRUCTIONAL TELEVISION - STUDIO AND CONTROL

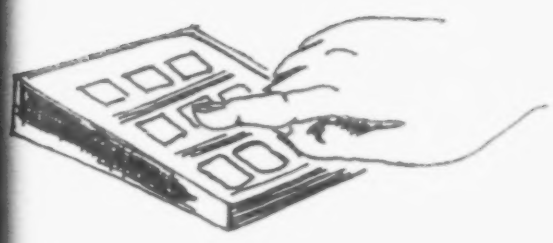
* *Should be provided if program calls for originating or transmitting television programs.*
* *Air conditioning is desirable; particularly in the control room(s).*
* *Includes the following areas:*

Area	*Minimum Square Feet*
Control	*500*
Studio (2)	*1,800*
Telecine	*150*
Video tape	*200*
Storage	*1,500*
Office	*120 each*



* *All new construction should at least provide for future installation of television equipment. This would mean providing adequate sized conduit or open construction from a central distribution point to all teaching stations and resource centers.*

ELECTRONIC INFORMATION
RETRIEVAL LABORATORY



* *The trend toward electronic information retrieval laboratories is already evident in advanced educational programs. Design should provide for future installation where such systems will not be immediately installed.*
* *Two patterns of organization have evolved: centralized and de-centralized. In either case a data-initiation room of 800 square feet minimum is needed to house audio and video sources, switching equipment and computer equipment. Size will vary depending upon the equipment to be housed.*
* *If the lab is centralized, a room of approximately 1,000 square feet will comfortably house 30 individual positions. When de-centralized, approximately 25 square feet should be allowed for each position desired.*

PRIMARY SCHOOLS

BASIC RECOMMENDED FACILITIES

* *Entrance and Circulation*
* *Reader Area - floor space for seating 10% of the anticipated student enrollment at 40 square feet per pupil. An additional allocation of space is needed to provide for a reading circle in an elementary situation. In no case should less than 2,000 square feet of reader space be provided for schools up to 500 enrollment. If more than 100 students are to be seated in this area, it should be divided into sections.*
* *Staff Offices.....120-200 sq. ft.*
* *Library Work Area and Storage.....200-350 sq. ft.*
* *Audio Visual Media Production and Storage Area.....500-800 sq. ft.*
* *Seminar.....120 sq. ft.*
* *Periodical Storage...250-400 sq. ft.*

ADVANCED FACILITIES

* *Viewing and Listening*
* *Faculty Work Area and Professional Library*
* *IMC Classroom*
* *Recording Studio*
* *Instructional Television Studio*
* *Electronic Information Retrieval Laboratory*

MIDDLE SCHOOLS

BASIC RECOMMENDED FACILITIES

* *Entrance and Circulation*
* *Reader Area - floor space for seating 15% of the anticipated student enrollment at 40 square feet per pupil. In no case should less than 4,000 sq. ft. of reader space be provided for schools up to 750 enrollment. If more than 100 students are to be seated in this area, it should be divided into sections.*
* *Staff Offices.....120-200 sq. ft.*
* *Library Work Area and Storage.....250-350 sq. ft.*
* *Audio Visual Media Production and Storage Area.....800-1,000 sq. ft.*
* *Periodical Storage...200-400 sq. ft.*
* *Seminar Rooms (2 to 6).....120 sq. ft.*
* *Viewing and Listening.....variable*

ADVANCED FACILITIES

* *Faculty Work Center and Professional Library*
* *IMC Classroom*
* *Microfilm Reader-Printer Area*
* *Recording Studio - Audio*
* *Instructional Television Studio*
* *Electronic Information Retrieval Laboratory*
* *Departmental Suites*

SECONDARY SCHOOLS

BASIC RECOMMENDED FACILITIES

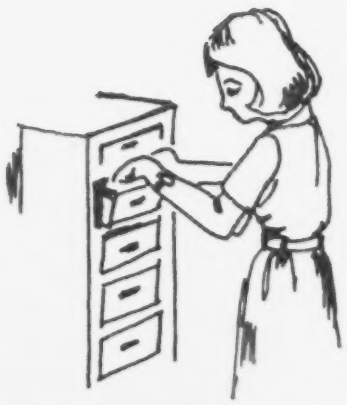
* *Entrance and Circulation*
* *Reader Area - floor space for seating 20% of the anticipated student enrollment at 40 square feet per pupil. In no case should less than 8,000 square feet of reader space be provided for schools up to 1,000 enrollment. If more than 100 students are to be seated in this area, it should be divided into sections.*
* *Staff Offices.....120-200 sq. ft.*
* *Library Work Area and Storage.....250-350 sq. ft.*
* *Audio Visual Media Production and Storage.....1,000-1,500 sq.ft.*
* *Periodical Storage....200-400 sq. ft.*
* *Seminar Rooms (2 to 6).....120 sq. ft. each*
* *Viewing and Listening Area.....variable*
* *Faculty Work Center and Professional Library.....600-800 sq. ft.*

ADVANCED FACILITIES

* *IMC Classroom*
* *Microfilm Reader-Printer Area*
* *Recording Studio - Audio*
* *Instructional Television Studio*

* *Electronic Information Retrieval Laboratory.*
* *Departmental Suites.*

EQUIPMENT AND FURNISHINGS



THE "KEYS"

* *The card catalog will occupy an area of approximately 50 to 100 square feet but this area will increase with a larger collection.*
* *A section for printed reference books (bibliographic sources) will occupy approximately 300 square feet.*

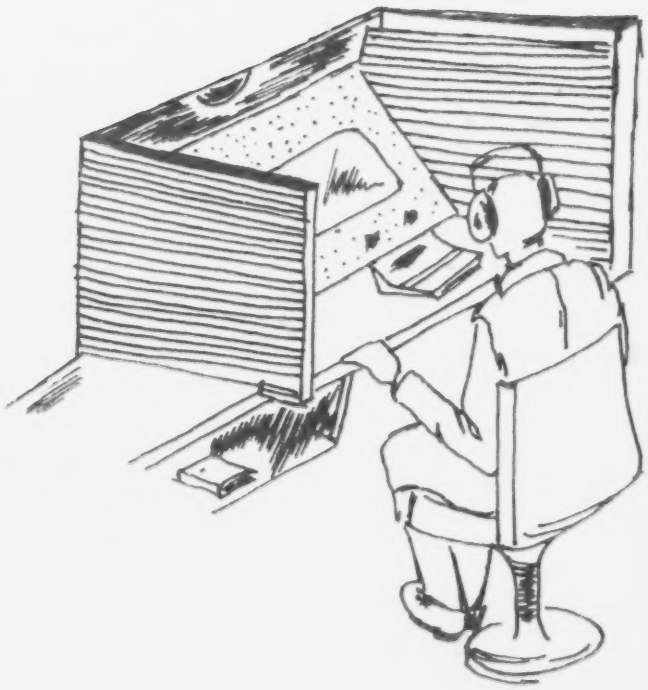
CIRCULATION DESK

* *Size and type should be determined by the nature of the library operation.*
* *Approximately 120 square feet is needed for the circulation desk area.*

INDIVIDUAL STUDY CARRELS

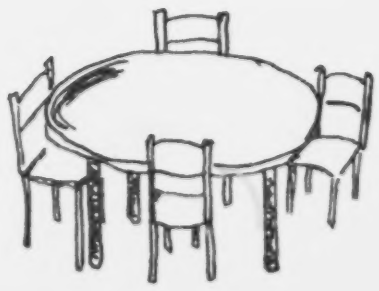
* *Dry carrels (non-electrified) should provide 4 to 8 square feet of work surface per student.*
* *Wet carrels (electrified) should provide 10 to 15 square feet of work surface per student.*
* *Adequate provision for electrical power should be made in all areas that are to house wet carrels (15-20 amps).*

* *Special provisions in the design of wet carrels for specialized equipment should be considered.*
* *Shelving and drawers to house books and materials should be provided in each carrel. Bookshelves should be 10 inches deep.*
* *The height of visual screens should be above the eye level of the work surface or approximately 20 inches in height, and should extend about one foot beyond end of desk area.*
* *It should be possible to seat two individuals at some carrels when that procedure is required, e.g. teacher working with student.*
* *Optional features:*
  - *Open bookshelves*
  - *Coat hook*
  - *Desk light*
  - *Control panel*
  - *Lockable book storage*
  - *Coat locker*
  - *Under-desk storage*
  - *Rear view projection devices*



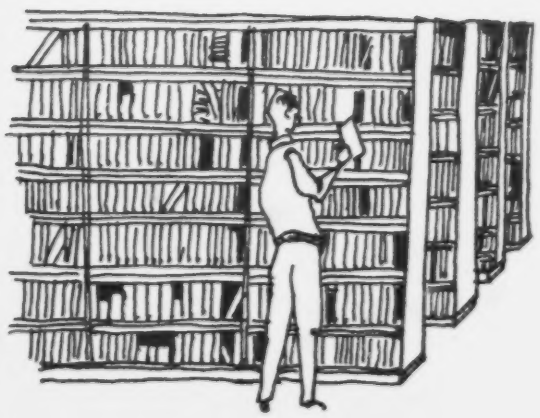
TABLES AND CHAIRS

* *Tables should be 26 to 28 inches high for primary and elementary school, 28 to 30 inches for intermediate and junior high school, and 30 inches for high school.*



* *Allow five feet distance between tables.*
* *Allow for several sizes of chairs to accommodate different sized individuals who will use them. Recommended heights are 15 to 17 inches for primary and elementary schools, and 17 inches for junior and senior high schools.*
* *Round tables should be at least 4 feet in diameter.*
* *Rectangular tables of approximately 3 feet by 5 feet are commonly used.*
* *Trapezoidal tables allow maximum flexibility in grouping, particularly in rooms where rearrangement of furniture for varying activities is necessary.*

TYPICAL STACK SHELVING

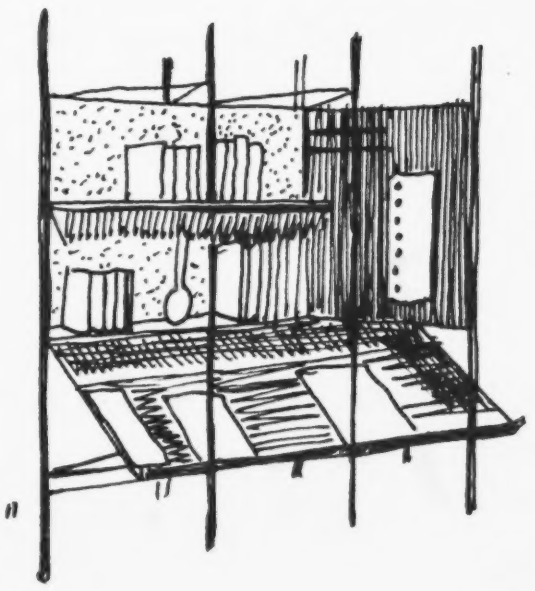


* *All shelving should be of the adjustable type.*
* *Aisle space between stacks should be at least three feet.*
* *Shelf depth should be 10 inches for standard books, and 12 to 14 inches for oversized and picture books.*
* *The maximum height of the shelving should be suitable to the age level of the students. Six to seven feet is generally considered appropriate.*

* *Shelving capacity on a three foot long shelf: average sized books - 30; reference books - 18; picture books - 60.*
* *Spacing should be five feet from a bookstack to the edges of adjacent tables or carrels.*
* *It is generally recommended that stacks be clustered.*
* *Types of stack shelving:*
  - *Steel bracket - free standing*
  - *Sliding shelf - free standing*
  - *Wood with metal strip or clips*
  - *Sloping wood or metal for periodicals*
  - *Stack boxes or lockers*

SPECIALIZED SHELVING AND DISPLAY

* *It may be desirable in elementary schools for example to provide specialized shelving for tall books.*
* *Specially hinged shelving will furnish display spaces for recent back issues of magazines and periodicals.*
* *Special racks should be provided for newspapers.*



MISCELLANEOUS FURNITURE

* *Atlas and dictionary stands, globes, and vertical files, will occupy varying amounts of space depending upon the particular needs.*

* *For browsing and informal reading areas, chairs of the upholstered variety are recommended. Some thought should be given to variation in color scheming as well as durability.*

SUMMARY

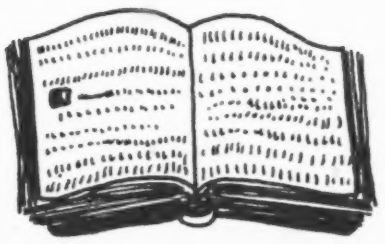
Educational concepts, as all concepts, are continually changing as man's knowledge of himself and the universe increases. Today, in education, more emphasis is being placed on independent study and individualized instruction. This emphasis should continue in the future for a number of reasons.

The explosion of knowledge we are experiencing necessitates that pupils' educational experiences be exploratory in all areas, but more concentrated in specific areas where a student's interest and capability lies. This can best be accomplished through teacher-guided activities followed by extensive periods of independent research and study. Consequently, each student will be required to have those skills which are necessary for such an individualized and research-oriented approach to learning. Since most information is found on the printed page, pupils must learn (at an increasingly earlier age) how to find the answers to their questions in published and unpublished materials.

These materials are cataloged and stored in school, university and public libraries. As in other areas of learning, research skills can best be learned through first-hand "laboratory" experiences in a library facility.

In addition to information on the printed page, there is today, and will be in greater abundance in the future, a considerable number of audio-visual materials (films, filmstrips, tape recordings, etc.) which need to be readily available to pupils requiring their use. This necessitates individual study areas in which such audio-visual materials can be utilized. However, since not all information (books, periodicals, newspapers, pictures, pamphlets, unpublished materials, letters and other documents, films, filmstrips, tapes, etc.) can be stored in one building, let alone in every school, provision must be made in the future, if not immediately, for gaining immediate access to these materials regardless of a school's location. This can only be accomplished by electronic means. New and future technological advances will undoubtedly make learning materials more accessible. As this occurs, schools will be required to have the capabilities for their use. To add all of the necessary facilities and utilities at a future date would undoubtedly be more costly than to incorporate the basic features in school construction now.

This publication has sought to specify facilities which appear today to be best able to implement the changing concepts in information retrieval and education. Questions and consultation regarding this bulletin and such facilities should be directed to the Director, Bureau of School Planning Services, Department of Education, 225 West State Street, Trenton, New Jersey, 08625; telephone (609) 292-4404.



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